

TAR SPOT OF MAHOGANY

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The genus Swietenia consists of seven or eight species and belongs to the mahogany family Meliaceae. West Indian mahogany, Swietenia mahagoni (L.) Jacq., the first species described (2), is also known as Spanish mahogany or Madeira redwood (4,5), and is native to southernmost Florida, including the Keys (2,5), and some West Indian islands (2). The tree reaches a height of up to 75 feet (23m) (4) with a swollen or buttressed trunk and a much-branched, often spreading crown (2,3). Mahoganies are handsome street and shade trees for tropical humid climates. They cast diffuse, pleasing shade and have an attractive spherical crown (2,5). Mahogany, among the most prized and beautiful of cabinet woods, is obtained from S. macrophylla and S. mahagoni (2).

Of the disease-causing microorganisms affecting S. mahagoni, Phyllachora swieteniae Petr. & Cif. (6) is considered a serious leaf-spotting fungus. Mahogany tar spot may render nursery-grown plants unsalable because of unsightly foliage and/or defoliation and reduce plant vigor by impairment of the photosynthetic process.

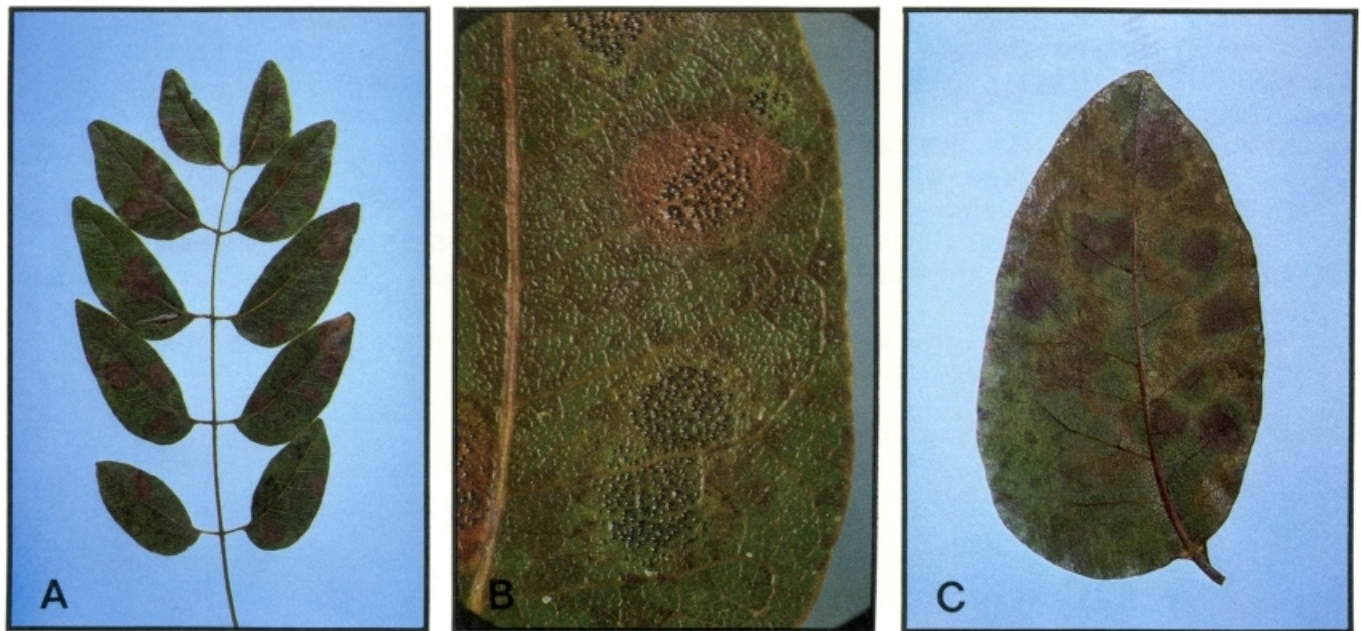


Fig. 1. Tar spot of mahogany. A) Upper leaf surface. B) Specks (clypei) on green and on necrotic background. C) Lower leaf surface. (DPI Photo #703018 by V. Jane Windsor).

SYMPTOMS AND SIGNS. Mahogany tar spot appears as 3-10mm spots (Fig. 1A) composed of circularly to ovaly arranged groups of 0.1-0.2mm shiny black raised specks on the upper leaf surface. Each speck is a clypeus (a shield-shaped stromatic tissue around the mouth of a perithecium) of the fungus (1,7) within which forms an ostiolate perithecium. The leaf tissue beneath and surrounding the clypei is initially a normal green color, later turning chlorotic, then necrotic and tan in color with a slightly darker border (Fig. 1B). Spots can coalesce. Moderate to severe leaf infections may cause considerable defoliation. The lower side of the leaf spot may display the same range of coloration as the upper leaf surface, though little or no clypeal development occurs (Fig. 1C). A gray fuzzy saprophytic growth of the fungus Beltrania often is present on the underside of the tar spot.

CONTROL. No specific controls have been established for this leaf-spotting fungus on S. mahagoni; however, if the disease incidence is unusually high, the fungicide benomyl can be tried for disease control. Benomyl is registered for use on shade trees, according to Circular No. 484-A, Fungicides for Use on Ornamentals 1983-1984, IFAS, University of Florida. Raking and removing infected fallen leaves is helpful in reducing inoculum.

SURVEY AND DETECTION. Look for tan leaf spots with shiny black raised specks on the upper leaf surface. This disease may result in defoliation.

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